Attachment D

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	**CC Docket Nos. 01-339,**
Review of the Section 251	)	**No. 96-98 and**
Unbundling Obligations of Incumbent	)	**No. 98-147**
Local Exchange Carriers	)	
	)	

DECLARATION OF STEPHEN G. HUELS
ON BEHALF OF AT&T CORP.

1. My name is Stephen G. Huels. My business address is 222 West Adams, Suite 1200, Chicago, Illinois 60606. I am Product Management Vice President for Integrated Services Transport Products in AT&T Consumer Services. Integrated Services Transport Products include consumer offerings employing AT&T facilities, the unbundled network element platform ("UNE platform" or "UNE-P"), DSL-based technology, and resale local service products.

2. In my current position, my responsibilities include the planning, development, and implementation of AT&T's bundled voice and DSL-based service offerings to residential customers nationwide. I am responsible for directing the deployment of AT&T's systems and processes to support local market entry nationwide, and for ongoing operational and financial oversight of the infrastructure employed (e.g., UNE-P, UNE-L and DSL technology, systems and processes) to provide local telephone service nationwide to residential customers.

3. I have been employed by AT&T since 1979 and have held numerous assignments in various AT&T organizations. I assumed my present position in July 2001. For the prior six years, I led a variety of product management and engineering teams responsible for planning, implementation, and/or management of AT&T's local services on both a regional and national level, beginning with AT&T earliest efforts to enter the residential local service market via

resale. Before that I held leadership positions in engineering, business sales, and supplier management.

4. I hold a Bachelor of Science degree in Business Administration from Southern Illinois University–Edwardsville and an M.B.A. in Technology Management from the University of Phoenix. I hold a professional designation of Chartered Financial Analyst.

I. SUMMARY AND PURPOSE OF DECLARATION

5. The purpose of this Declaration is to describe AT&T's experience in attempting to enter the local exchange market for residential services, including both "regular" voice grade local telephone service as well as services that rely upon DSL (or similar) technologies that permit full exploitation of the loop element's transmission capacity. AT&T's experience is that except in the limited areas where AT&T Broadband has been able to deploy cable telephony, unbundled network elements ("UNEs"), including the UNE platform, have been critical to AT&T's ability to enter the local exchange market. AT&T's market experiences also confirm the critical role UNEs play in permitting AT&T ultimately to compete by employing its own facilities. And given the impending spin-off of AT&T Broadband, absent the availability of UNEs (and UNE-P), there is no reasonable prospect that AT&T could profitably compete for residential customers' local voice and data services anywhere today. Though UNE-P is not yet available as a practical matter in most states, AT&T's experience is that the availability of UNEs promotes – rather than deters – AT&T's investment in facilities-based local service.

6. To serve residential customers in the local exchange market, AT&T would prefer to use its own facilities to provide local service whenever possible. There are three main reasons for this preference. First, it minimizes AT&T's dependence on the ILECs for the provision of local exchange service and AT&T's vulnerability to lack of parity performance by ILECs in provisioning and maintenance. Second, it allows AT&T to achieve scale economies that are not

possible when the service infrastructure is obtained as a variable cost even though the underlying costs are largely fixed. Finally, it allows AT&T to differentiate its services from that of ILECs, and to offer consumers innovative products and features not available from ILECs.

7. Despite this preference, however, AT&T has been required to use UNEs out of sheer necessity. First, the costs of deploying the facilities needed to provide facilities-based local service to residential customers are enormous, both in terms of unit cost and the capacity to serve. Indeed, as the Commission has recognized, massive investment in separate wireline facilities at an early stage of market entry simply is not financially feasible because it yields huge average unit costs. *UNE Remand Order*, ¶ 76. AT&T is no different from any other company in this respect. Any company, large or small, can justify massive capital investments only if it can be reasonably assured that revenues can quickly be realized that "pay back" the investments it has made. If a new entrant's customer base remains small for an extended period of time, the ability to recover its existing investment in facilities-based local service is jeopardized and further investment is seriously discouraged.

8. Accordingly, AT&T, and any prudent company, will make substantial investments in facilities only if and when it sees a viable opportunity to build a customer base that is large enough to generate sufficient revenues and scale economies to be profitable. Hard experience in the marketplace has shown AT&T that the use of UNEs (particularly UNE-P) is the only way that AT&T can begin to overcome the numerous impediments to local competition and begin to build a local residential customer base and revenues required to produce acceptable margins.

9. Second, and equally as important, AT&T has been required to use UNEs because residential local service customers would otherwise be inextricably bound, for all practical purposes, to the ILEC. The availability of appropriately priced UNEs, and particularly UNE-P,

is the only means that has allowed AT&T to neutralize the overwhelming limitations presented by both the manual "hot cut" process and the increasing number of customers that are effectively "hidden" behind ILEC loop transmission equipment, such as traditional Digital Loop Carrier ("DLC") or the so-called Next Generation Digital Loop Carrier ("NGDLC").

10. But despite the critical importance of UNEs to AT&T's (and any CLEC's) ability to offer local service to residential customers, the reality is that UNEs are only available as a practical matter in a handful of states. AT&T can compete in the local residential market only in those areas where it has non-discriminatory access to minimally functioning ILEC OSS and where UNEs are priced so as to leave a reasonable gross margin between the retail cost AT&T can charge and the connectivity cost for the UNEs and additional operating costs. Thus, AT&T, and any other competitor, can only evolve to be a facility-based provider if its gross margin after paying for UNEs is sufficient to permit investment in facilities to serve residential customers.

11. In Part II of this Declaration, I review the history and evolution of AT&T's residential market entry strategy, and the harsh lessons that AT&T learned from this market experience. While AT&T has found that large numbers of residential consumers are interested in an alternative to the incumbent LECs' monopoly local exchange services, it has also found that factors outside of AT&T's control—including operational and economic obstacles created by ILECs as well as unnecessary regulatory impediments—have limited prospects for profitable market entry and for continued ability to provide local residential service in many areas. In particular, I describe the reasons why resale failed as a competitive option and why alternative facilities-based approaches, such as fixed wireless and broadband cable, have proven impractical to establish widespread residential local competition in the near term. AT&T's experience with resale is a classic case study that illustrates the critical importance of profit margin to a CLEC's ability to enter the market and later to invest in its own facilities. Where, as happened with

AT&T's resale entry, the incremental revenues a CLEC can realize from providing service are below its incremental costs, the CLEC will have neither the ability nor the incentive to invest in facilities, regardless of how many customers it may have attracted. This situation stands in sharp contrast to the development of competition in the long distance marketplace, where resale was and continues to be a viable competitive alternative, because of the significantly greater margins between wholesale and retail prices and lower entry barriers.

12. In Part III of this Declaration, I describe AT&T's use of UNEs in entering the residential market, and in particular the important role of the UNE platform in enabling AT&T to enter the residential local service market in at least some states. I will describe why proper pricing and unqualified availability of the UNE platform permits AT&T to enter a market and allows it to build a sufficient customer base both to warrant and to pay for further investment in facilities. I also explain that in order for AT&T to accomplish this it needs (i) UNE pricing at levels that do not foreclose competition, (ii) continued access to all of the necessary UNEs (including UNE-P), and (iii) prompt removal of the regulatory and operational obstacles to the use of those UNEs. In addition, I will also discuss the benefit to consumers in those states from the nascent competition that has begun to develop, and specifically how AT&T has been able to offer consumers a variety of competitively-priced, flexible plans that allow consumers to select the services and features that best meet their individual needs. Finally, I will conclude that section by indicating the problems that make UNE-L so costly and inefficient an alternative that to date AT&T and other CLECs have been prevented from using UNE-L to provide service to the high volumes of customers necessary for entry into the local residential service market.

13. In Part IV, I describe AT&T's innovative plans to offer consumers an integrated set of local, long distance, and DSL-based services. This "Multi-Service Platform" offer is important to achieving AT&T's *long-range* objective of providing service largely by using its

own facilities. I explain that AT&T's offering is targeted to those areas where regulatory and market conditions are most likely to permit a successful entry. The scope of AT&T's strategy is constrained, however, by two main factors. *First*, the ILECs' choice of loop architecture makes it increasingly difficult to provide DSL-based services from central office collocations as well as making it generally more difficult to offer UNE-L-based service. *Second*, the lack of clear regulatory rules permitting CLECs to access the high frequency spectrum ("HFS") of the loop granted the incumbents a *de facto* early mover advantage that has enabled them to obtain a more than 90% DSL market share for residential customers.[1]

14. In Part V, I reference AT&T's plans to move beyond the use of UNE-P in providing residential consumer services. When AT&T is able to obtain DSL-capable loops, efficient cutovers and UNE transport at cost-effective rates, as well as the ability to aggregate demand through hubbing arrangements, AT&T will be able to consider using the facilities underlying the MSP offer to provide residential UNE-L service, even for voice-only customers — at least where the regulatory environment and the ILECs' loop architecture choices do not present a barrier to all UNE-L-based competition. AT&T can make the incremental investments needed to deploy UNE-L residential voice service only when market conditions are ripe — principally when it has acquired a sufficient based of MSP customers generating higher margins. AT&T's entry into the market via UNE-P allows it to acquire the customer base to whom it can market the MSP product. However, without the chance to acquire the higher margin customers –

---

[1] See *TeleChoice 4Q01 DSL Deployment Summary-Updated 2/11/02* (visited April 4, 2002), <www.xdsl.com/content/resources/deployment_info.asp>; see also *Third Section 706 Report*, ¶ 51.

made possible through the practical availability of UNEs, and especially unbundled NGDLC loops — there is little prospect that economies of scale will support transitioning residential voice-only customers to a facility-based network.

15. Finally, I will discuss how AT&T's migration of residential local service customers to facilities-based arrangements cannot occur on a large scale unless the ILECs deploy technology needed to permit unfettered, inexpensive, and flawless migration of large volumes of retail customers' loops. Other CLECs, like AT&T, have a sizeable incentive to invest in facilities, but only if there is a reasonable prospect that their target customers can be quickly and easily transferred from the ILEC network and the ILECs are foreclosed from draining off the profits from serving local retail customers through unreasonable recurring and non-recurring charges. Thus, given the Commission's desire to encourage competitive investment, it must recognize the true sources of CLEC investment disincentives and remove the artificial barriers to competition that result from (i) the manual hot cut process, (ii) the ILECs' choice of loop architecture, (iii) the impediments implicit in the current use restrictions, which preclude the efficient demand aggregation that is a necessary precursor to facilities investment, and (iv) the drain on CLEC profitability caused by poor operational performance and excessive UNE pricing. Unless the Commission promptly removes these key impediments, as well as others, AT&T and other competitors will not have a path to offer effective, facilities-based competition.

II. THE EVOLUTION OF AT&T's COMPETITIVE ENTRY INTO THE MARKET FOR RESIDENTIAL LOCAL EXCHANGE SERVICE

16. Following the enactment of the 1996 Act, AT&T explored several avenues for entering the residential local exchange markets, including resale, the use of alternative (non-ILEC) facilities, and the leasing of UNEs. To date, access to UNEs has proved to be the only economically viable means for AT&T to pursue broad scale entry into the residential services

market. AT&T's ability to use UNEs to pursue residential entry has been impeded, however, by the ILECs resistance to making UNEs available. Without assurances of unencumbered UNE availability for the foreseeable future, the residential competition that AT&T has provided to date will likely be crushed, and there will be no bridge to enable AT&T to provide broad-scale facilities-based competition in the future.

17. The CLECs' inability thus far to win a sizeable customer base in local markets and justify expanded investment is not due to any lack of consumer interest. Indeed, AT&T's experience demonstrates quite the contrary. There is significant consumer interest in alternatives to the incumbent ILEC monopoly local exchange services. In New York and Texas, where AT&T has launched marketing campaigns for local services via a UNE-P based offer, over a million customers have signed up for AT&T's voice service. While it is still early, consumer interest appears strong in AT&T's recent market entry in Georgia and Michigan—with tens of thousands of new customers signing up for local residential service with AT&T in Michigan during the first month plus of AT&T's entry into that market. This consumer response parallels AT&T's success in attracting customers via resold service, and demonstrates the pent-up consumer demand for true competitive choice in the local residential market.

18. AT&T's ability to launch such campaigns and to retain customers, however, has been significantly impeded by many factors attributable to the ILECs and/or otherwise outside of AT&T's control. Critically, the ILECs control the established, ratepayer-financed infrastructure used to provide such service, and particularly the critical transmission capacity of "last mile" loop connectivity between end-users' premises and the incumbents' Local Serving Offices ("LSOs"), as well as the infrastructure essential to connect customers a competitor has won to the CLEC's switch or facility hub. The ILECs' control has permitted them to restrict AT&T's practical access to UNEs and UNE combinations through tactics such as excessive charges,

restrictions on the use of UNEs, protracted litigation, poor performance and unworkable processes, and network architecture choices that serve to wall off the ability to access customers' loops. These circumstances have severely limited the profitability and productiveness of AT&T's assets and reduced, if not substantially eliminated, most of its incentives to new investment in additional facilities.

19. Plainly, AT&T would prefer to provide service through its own facilities, in order to minimize dependence on the ILECs for access to its customers, as well as potential ILEC constraints on service functionality and the ILECs' ability to influence the pace or scope of new service offerings. However, replicating the existing ILEC loop infrastructure is impractical for anything other than niche situations (Lesher/Frontera Dec., Sec. III.A), and replication of the ubiquitous transport network necessary to reach the thousands of LSOs where AT&T must connect to individual residential customers' loops would be prohibitively expensive. The ILECs are the only market participants that start with the advantages of *ratepayer funded loops* that terminate precisely where their core service network ends. As a result, AT&T and other CLECs cannot compete broadly unless they have practical and cost-efficient access to those same loops. Even without other ILEC-introduced impairments, connecting to these loops is a daunting task, because for just the former RBOCs alone, their more than 140 million loops are dispersed among more than 8,500 different buildings.[2]

[2] Table 10.1 of the October 2001 Federal-State Joint Board *Universal Service Monitoring Report* shows that in 2000, the former RBOCs provided service to 139,766,000 equal access lines (total less Verizon-former GTE) and that the former RBOCs had 9,549 local switches in service. AT&T examined a December 2001 version of the LERG and found that the count of RBOC unique 11 character switch CLLIs was about 10% higher than the count of the 8 character CLLI where the switches were located. Thus, the 9,549 switches equates to slightly more than 8,500 buildings.

20. Given these difficulties in replicating the ILECs' networks, in order to enter the market expeditiously, AT&T initially attempted to rely upon resale of ILEC services. At the same time, mindful of the disadvantages of being dependent on our chief competitors, AT&T also invested enormous sums in local entry via alternative facilities. AT&T's resale experience demonstrates that CLECs cannot compete effectively, or ever hope to invest in their own facilities, if the incremental costs they incur in providing residential service exceed the incremental revenues they receive. The experience with alternative facilities demonstrates the same thing: fixed wireless technology has not proved a reliable vehicle for local residential entry at a reasonable cost, and cable telephony is viable only where expensive upgraded facilities are in place and the infrastructure cost is spread across video, Internet, and other services. Moreover, because of the high up-front cost of facilities, even if a CLEC could, in theory, earn a positive margin, it cannot afford the necessary investment and remain financially viable unless and until it accumulates a customer base that is large enough to generate the revenues needed to support its initial facilities investment. Thus, facilities-based competition cannot reasonably be the first step in AT&T's market entry, especially for relatively low volume (and low margin) users such as residential customers. That is why AT&T's only significant success to date in serving residential customers has been through the use of UNEs, and in particular UNE-P.

A. Resale

21. AT&T first attempted to enter the local market by reselling the ILECs' service, with the long-term objective of providing service to these customers through its own facilities once the resale operations generated sufficient revenues to fund such assets. AT&T began to offer local service through resale in California (Pacific Bell areas only), Illinois, and Michigan in late 1996 and early 1997. Eventually, AT&T entered the market through resale in Texas, Georgia (BellSouth areas only) and Connecticut (SNET areas only). At the height of its resale

effort, AT&T was providing service through resale to 250,000 customers, with the largest concentrations in California, Illinois, Texas and Michigan.

22. Resale, however, proved to be an economically infeasible method of entry. In most states, the avoided cost discount gave CLECs a discount of only about 20 percent off retail prices. This 20 percent discount reflected the sales, marketing and other directly variable expenses associated with providing local service that the ILEC would avoid because another carrier was performing the function (thus the ILEC effectively retained its entire profit on the retail service). With experience, it became clear to AT&T that the amount of the discount was insufficient to cover the direct costs and incremental investments AT&T incurred in providing resold local service. For example, AT&T was required to make substantial investments in new operational support systems ("OSS") and interfaces to the ILECs' OSS. In addition to these up-front OSS costs, AT&T incurred additional operational costs resulting from deficiencies in the ILECs' OSS and procedures so as to make these process deficiencies transparent to customers. These deficiencies included manual fall-out of electronically submitted orders, unexpected order rejections, and improper ILEC provisioning of customers' orders. AT&T's resale entry also required it to make substantial expenditures for marketing, to inform and convince residential customers to change their service provider from the ILEC to AT&T.

23. Because its costs exceeded the amount of the avoided-cost discount, AT&T sustained a loss on each customer it served through resale, regardless of how large a customer base it acquired. Indeed, the larger the number of resale customers AT&T acquired, the greater its losses became. As a result, AT&T stopped marketing resale to new customers by the middle of 1998.

24. AT&T's experience with resale taught AT&T a simple, stark lesson: whatever the mode of entry it is considering, AT&T cannot remain in a new market if it cannot be

reasonably certain that its aggregate revenues from its new customers will quickly exceed at least the variable cost of providing service to them. Although AT&T had expected the avoided-cost discount for resale would generate revenues that exceeded its costs, the actual costs of customer acquisition and service proved to be much higher than AT&T had anticipated – thus making it impossible for AT&T even to earn a positive profit margin on its resale service, much less generate any return to cover its investments in OSS and back office systems or generate free cash for new local service assets.

25. From the consumer perspective, it became obvious that resale would not permit innovation. Further, given the modest size of the resale discount – and the fact that the resale carrier could not, as the ILEC, receive the retail profit on the service, access charges (or savings) or Universal Service subsidies – the CLECs also could not afford to lower rates to place any downward pressure on an ILEC's retail prices. Thus, resale was of limited value to consumers as well.

B. Alternative Facilities Approaches

26. In addition to its market entry through resale, AT&T invested billions of dollars in two other approaches for the provision of local exchange service to residential customers through its own facilities: fixed wireless and cable. Neither method, however, has proved to offer a path to either prompt or widespread facilities-based competition to the ILECs.

1. Fixed Wireless

27. Fixed wireless involves the use of a small microwave antenna externally mounted at the customer's premises. This customer premise equipment is pointed back to the provider's access point—typically a tall building or radio tower—to create a wireless local loop.

28. AT&T invested more than **[begin proprietary] [begin copy prohibited]** ** ******* **[end proprietary][end copy prohibited]** in "Project Angel," which targeted residential

users with an integrated fixed-wireless service package that included a 512K bit/second Internet access service. This fixed-wireless offering attracted users in the low tens of thousands in its initial test applications in a few areas, most of them residential consumers.

29. Despite its initial promise, the fixed-wireless alternative proved not to be a viable business model for AT&T, and now AT&T Wireless. Fixed-wireless technology was initially limited to line of sight locations, and must still accommodate certain geographical complications in non-line of sight ("NLOS") formats (such as multi-channel multipoint distribution system ("MMDS") and local multipoint distribution system ("LMDS")). Like other providers of fixed wireless, AT&T (and, subsequently, AT&T Wireless) encountered delays in locating towers, increasing installation costs, and problems in improving backhaul provisioning with the ILECs. For these and possibly other reasons, AT&T Wireless, which received the Project Angel assets when it was spun off from AT&T, recently terminated the fixed wireless offering. Similarly, Sprint announced it would stop taking new customers for its own fixed wireless offering. Other providers of fixed wireless, even those that focused on more lucrative business customers, are now bankrupt.[3]

2. Cable

30. AT&T Broadband LLC, all of which is being spun off from AT&T in a merger with Comcast, currently provides residential customers with cable-telephony services, using the

---

[3] Although certain CLECs, such as Winstar, continue to provide fixed wireless on a limited geographic basis, they have not been able to do so on the broad scale that AT&T originally envisioned. For example, Winstar recently announced plans to exit from its fixed wireless business in certain of its smaller markets, while maintaining its wireless operations in only 22 cities. *See* "IDT Corp.: Winstar to Exit From Some Markets, Trim Work Force," *Wall Street Journal*, March 11, 2002.

cable facilities that AT&T acquired in 1999 and 2000 through its acquisitions, at a cost of nearly a hundred billion dollars, of TCI and MediaOne. Just over the last couple of years, AT&T spent $5.5 billion more to upgrade those networks, lay fiber, and create data centers. The cable-telephony service provided by AT&T Broadband is, of course, different from the wireline telephone service provided by AT&T, and once the Comcast merger is complete, AT&T Corp. will not be offering any cable-based telephony services.

31. More critically, however, experience has already shown that cable telephony cannot, by itself, serve as a fully effective competitive alternative to the ILECs in the near term – and most important in this context, it does not reduce the CLECs' need for access to UNEs. First, only a limited number of cable providers have equipped their cable networks to provide telephony services. As a result, cable providers today serve only about 1.9 million customers nationwide,[4] not much more than the 1.7 million local residential customers that AT&T and others serve by UNE-P in New York alone. Moreover, many residential customers are not served by cable at all and thus have no possibility of any cable-based telephony unless and until cable providers decide to make the substantial investments needed to upgrade their cable plant. Thus, significant facilities-based competition from cable is at best a future possibility, not a current reality.

III. AT&T's COMPETITIVE ENTRY VIA UNEs

32. In this section, I discuss AT&T's use of the UNE platform as a means of offering local service in the residential market. AT&T's provision of service through UNE-P has been

---

[4] *Local Telephone Competition: Status as of June 30, 2001*, FCC IAD/CCB, February 2002, Table 5.

limited to the few states that have set UNE rates at levels that do not preclude profitable entry, and that have required the ILEC to provide at least minimally functioning OSS. In those states, AT&T has been able to offer a viable alternative to the ILEC that provides clear benefits to consumers.

33. AT&T's provision of residential service through UNE-P followed an earlier attempt to provide service to business customers through UNE loops ("UNE-L"). As described below and the accompanying declaration of Ellyce Brenner, UNE-L entry was and continues to be an unattractive option for the mass market (i.e., residential and most small business locations) for a variety of reasons, including the ILECs' assessment of recurring and non-recurring charges that substantially eliminate opportunities to generate reasonable margins, the ineffectiveness of the "hot cut" process that the ILECs use to migrate customers to UNE loops,[5] and the ILECs' choice of technology that has made provision of UNE-L service extremely difficult and expensive for CLECs to use their own switches, especially for customers served by traditional voice-grade loops.

---

[5] The "hot cut" process transfers a customer's loop from an ILEC switch to a CLEC switch and allows the customer to retain its existing telephone number(s) and any hard-wired facilities used by the ILEC central office serving the customer. Generally, for an existing ILEC customer switching service to a CLEC, the process involves two separate changes that must be made at approximately the same time: (1) the loop cut, which involves the manual transfer of the customer's loop such that it will be able to terminate on the CLEC's switch rather than at the ILEC's switch; and (2) the porting of the telephone number, which requires software changes to permit the appropriate routing of inbound calls to the end user based upon the end user's existing telephone number (activated by the CLEC), and the disconnection of the ILEC's switch translations (implemented by the ILEC). The process is known as a "coordinated hot cut" because these two steps are concurrently performed on a loop over which the customer is currently receiving service. If these steps are not performed on time and in the proper sequence, the customer will suffer a loss of service.

A. AT&T's Provision of Service Through the UNE Platform

34. AT&T learned from its resale experience that market entry is viable only where revenues will be sufficient not only to cover variable costs, but also to generate a revenue stream that will enable AT&T, over time, to recoup its investment and to fund new investment– whether network equipment or other related assets. Said another way, the resale experience gave AT&T first-hand experience and insight into what the operational and investment costs to enter local markets really were.

35. Entry through the UNE-P offers a number of advantages compared to resale. For example, use of the UNE platform gives CLECs the ability to provide exchange access and to offer services and feature combinations that differentiate themselves from the ILECs. Even so, gross margins (revenues less cost of goods sold) from the provision of residential service through UNE-P tend to be small even in the best of circumstances, because most residential customers do not purchase large quantities of telecommunications services. Furthermore, because the network infrastructure used in UNE-P is entirely a variable cost to the CLEC, there is no prospect that its gross margins will increase substantially, even if the CLECs' customer base expands dramatically. On the other hand, facilities-based provisioning has a number of essentially fixed costs so that, once a critical mass of customers is obtained, more customers results in increased margins, allowing a CLEC the flexibility to invest to serve new markets, expand in existing markets, win more customers by offering lower prices and increased features, or any combination of the above.

36. A CLEC will have no ability or incentive to make investments in facilities if unreasonable ILEC charges and operational inefficiencies transfer costs to the CLEC that make the CLEC's incremental costs exceed its incremental revenues. Where the prospects of incremental profit margin are small, investment will necessarily be smaller and slower, because

the CLEC must acquire a correspondingly larger customer base before it can generate the revenues needed to invest in its own facilities.[6]

37. Even when the ILEC's rates appear reasonable, AT&T cannot pursue market entry using UNE-P if the ILEC fails to provide nondiscriminatory access to at least minimally functioning OSS. The additional expenditures that AT&T has incurred because of the inadequacy of the ILECs' OSS – whether through repeated re-design of AT&T's systems interfaces to the ILEC OSS or through process re-work to correct ILEC process defects – has shown that even where unit revenues exceed the UNE-P related charges, positive margins can evaporate due to other ILEC activities that raise AT&T's OSS-related costs. Additionally, poor ILEC OSS can damage AT&T's reputation as a local market provider and costs to repair such damage can further erode positive margins.

38. For these reasons, AT&T seeks to limit its market entry through UNE-P to those states whose regulatory commissions have compelled the incumbent LEC to establish cost-based UNE rates and charges that provide reasonable gross margins and where the ILEC provides sufficient OSS support to make initial market entry possible.

39. To date, from AT&T's perspective, the two prerequisites for UNE-P local entry – reasonable UNE rates and marginally acceptable ILEC OSS performance subject to effective oversight from the state public utility commission – have been achieved in only a handful of states. There are additional states that have reasonable prospects for ILEC rates or acceptable

---

[6] Furthermore, thin margins imply a much greater financial risk. As a result, investment funds will flow to these opportunities last, and they also will come at a much higher cost, which also makes investment harder to justify.

OSS performance, but not both. AT&T has opted to begin incurring the substantial marketing and OSS expenditures necessary to support UNE-P local entry, as states offer reasonable prospects for both prerequisites. A broad-based UNE-P offer requires CLECs to make substantial expenditures for OSS, OS/DA, customer care, marketing, billing and other activities. Much of that expenditure and investment is for OSS and provisioning systems that are also necessary to support any subsequent facilities-based competition. From 1999 through 2001, AT&T spent almost **[begin proprietary] [begin copy prohibited]** ********** **[end copy prohibited] [end proprietary]** in its UNE-P market entry initiatives, including **[begin proprietary] [begin copy prohibited]** ********** **[end copy prohibited] [end proprietary]** for design, development, and testing of systems, and **[begin proprietary] [begin copy prohibited]** ********** **[end copy prohibited] [end proprietary]** for production costs to maintain and operate its systems.

40. To date, AT&T has entered four states: New York, Texas, Michigan, and Georgia. Still, at times, AT&T has been disappointed in the UNE rates and/or in the ILEC's OSS performance.[7]

---

[7] AT&T's entry in a state is not an admission that all of the standards mandated by the Act have been met, but only that the situation in a state reasonably allows market entry in the hopes that the RBOC will continue to improve its OSS to the full nondiscriminatory levels required by Sections 251 and 271. For example, AT&T has entered in Michigan despite the fact that WorldCom has filed complaint against Ameritech for failing to provide local "line loss notifiers," without which a local carrier does not know to cease billing a customer, because it does not know the customer has migrated his or her local service to a different carrier. Such an OSS deficiency risks damage to the reputation of AT&T and other CLECs, because the customer is unlikely to attribute the problem to Ameritech. Thus, the mere fact of market entry cannot be dispositive as to whether the RBOC meets its section 271 obligations. Similarly, the fact that UNE rates in a state may allow CLECs a margin sufficient to justify market entry does not mean that those rates are fully compliant with the TELRIC requirements of the 1996 Act.

41. For example, even in New York, AT&T was forced to the brink of withdrawing from local service because excessive UNE rates did not provide a reasonable margin. *See, e.g., Daily News*, "AT&T May Hang it Up, Warns Verizon rates will lead to exit of local service." (Jan. 21, 2002). Fortunately, the New York Public Service Commission's action on the long-pending UNE rate case has now provided competitors with reasonable UNE rates. That decision, in turn, has enabled AT&T to reinvigorate its marketing efforts in the New York local market and to introduce an innovative price guarantee for its unlimited local calling plan, even in the face of Verizon rate increases.

42. In Texas, AT&T believes the current UNE rates exceed cost-based levels, and AT&T's experience with the current UNE rates has demonstrated that they are too high to permit effective local competition. The Texas PUC, which has been a leader in attempting to foster local competition, is currently conducting UNE rate proceedings in which AT&T is participating. AT&T's continuing efforts to offer local residential service in Texas reflect AT&T's hope and expectation that those proceedings will soon yield new cost-based UNE rates that will permit UNE-based competition in Texas to flourish and expand.

43. UNE-P entry by AT&T is in its infancy. The two most important prerequisites to UNE-P entry are still being addressed in many states. For example, with respect to OSS, until 2002, AT&T had only offered UNE-P using Verizon's OSS in New York and SBC's OSS in Texas, and was still working through the very real challenge of testing whether it could receive at least the minimally necessary OSS support for local entry in other RBOC footprints. It is only

in the first quarter of 2002 that AT&T has begun offering local UNE-P service in Ameritech and BellSouth areas,[8] and subjecting those OSS to the test of real market and customer experience.

44. While many states have worked hard in the past few years to develop performance metric plans for ILEC OSS, only some of the states that developed such metrics have been able to review the ILEC's OSS performance after actual UNE-P local entry and market competition. Indeed, the Commission only recently received comments on the need for federal performance standards and for enforcement of the ILEC's performance obligations in provisioning unbundled elements. AT&T and other CLECs have urged the Commission in that context to step up FCC enforcement when ILECs fail to meet appropriate performance metrics. The necessary regulatory framework to support actual UNE-P competition is still being worked out.

45. There are also many ongoing state rate cases actively reviewing UNE rates. If reasonable rates allowing necessary margins are adopted in those states (and there is reasonable assurance of adequate OSS performance), AT&T expects to provide a UNE-P offer in those states as well.

46. For all of these reasons, customers are only now beginning to see the fruits of competition, and only in a very few states. Yet UNE-P holds the promise of bringing substantial competitive benefits to consumers, as AT&T's experience already shows.

47. There has been no easy, clear, or inexpensive road to UNE-P local entry. Emerging only now, after significant investments of time and resources by CLECs and

---

[8] Although Ameritech has been acquired by SBC, the OSS in the Ameritech states are different from those in the original SBC states.

regulators, UNE-P should be provided an opportunity to work, so that CLECs have the opportunity to amass the local customer base and generate revenues that could support further investment in local facilities. The more than one million AT&T UNE-P local customers to date demonstrate customers' appetite for local competitive choice, and AT&T's willingness to compete with entrenched providers when given a fair opportunity to do so.

48. However, for reasons set forth above and others, UNE-based entry is far from ideal. A review of the actual cost of UNEs indicates that AT&T pays the ILEC an extremely high portion of every dollar that AT&T earns from the provision of UNE-P based services. AT&T has submitted evidence in several Section 271 proceedings that ILEC UNE-P rates often create a "price squeeze" that precludes viable market entry, even using UNE-P. Even looking at the generally available resale discounts of 20% – which reflect only the incumbent's avoided retail expenses for providing wholesale resold services and do not include an ILEC's return on capital, taxes or profit – if AT&T operated at the same efficiency as the ILEC, it would *lose* money on every dollar of revenue earned. In fact, use of the resale discount as a proxy for internal costs is likely conservative.[9] AT&T would prefer to provide service by relying on its own facilities, rather than use the UNE platform. Current prospects for such entry are impossible for CLECs who are willing to serve residential users. Furthermore, given the costs associated

[9] A cursory review of the ARMIS 2000 Table 43-01 data shows that non-plant related expenses (i.e., internal costs of operations excluding non-regulated, billing and collection and special access services) represent 33 percent of local service revenues (including basic local service revenues and SLC). Thus, contrary to the ILECs' assertions that UNEs are artificially attractive and inhibit investment, quite the contrary is true – the pricing of UNEs, particularly UNE-P at its present levels, has made it an unattractive competitive alternative in most states. Indeed, the CLECs' main problem is that they lack the practical and truly cost-based access to UNEs they need to enter the market at all in most states.

with facilities investment, AT&T must first seek efficiently to use the assets it currently has deployed – a difficult undertaking given the current environment. Lesher/Frontera Dec., Sec. IV.A. Likewise, AT&T must be extremely selective to deploy assets that will be productive and assure maximum opportunity to earn revenues and to differentiate its services promptly.[10] Failure to operate in this manner means the revenues generated by these investments will likely not repay the cost of the asset (with a reasonable return) over the asset's useful life. But the market facts show that is not occurring – CLECs, including AT&T, have extensively deployed assets but are generally unable to use them productively. *Id.*

49. In short, the deployment of facilities to serve customers must be the end – not the beginning – of the market entry process. If a CLEC invests in facilities before it has established a sufficient customer base from which to begin recouping the cost of those facilities, it risks the very real possibility of financial losses so large that it will find subsequent funding difficult or impossible, or, in the extreme, of being forced to cease competing altogether. Indeed, the recent CLEC bankruptcies are market-based evidence of what happens when investments are not productive.

50. In the meantime, UNE-P is the sole vehicle by which AT&T can enter the residential local market given the economic unfeasibility of resale, fixed wireless, and premature deployment of separate facilities. At the same time, as discussed further below, UNE-P provides

---

[10] Given these market imperatives, it is not surprising that the ILECs seek to impair competitors' ability to deploy assets that may serve to differentiate CLECs' service – such as DSLAMs and switches – and to divert the CLECs' investment to "featureless" transport capacity (that requires huge economies of scale) by attacking the ILECs' obligations to unbundle high capacity loops and transport.

less-than-ideal economics, and AT&T necessarily is looking for innovative ways to offer new services such as the Multi-Service Platform integrated services offer.

B. Benefits to the Customer of UNE-P Local Competition

51. Beyond new investment, UNE-P based service can provide residential consumers with product options and competitive pricing previously unavailable from the ILECs. These options give consumers more choices and different value, allowing them to select among a variety of service plans that fit their individual calling patterns and needs for special features. Currently, AT&T is offering local voice service over UNE-P to residential customers in four states—New York, Texas, Michigan, and Georgia. In New York and Texas, AT&T also is offering its Multi-Services Platform ("MSP") on a controlled basis. As described below, MSP is an integrated services package including options for local, long-distance, and DSL data/internet service, using UNE-P for analog voice service.

52. With local market competition, customers have been offered numerous benefits and incentive awards for subscribing to local service, plans and features. For example, in conjunction with its UNE-P local service offers in New York and Texas, AT&T has offered customers various incentives including a waiver of switching charges, a first month's bill credit for its $12.50 feature package or a local calling plan's monthly recurring charge, a free corded phone (a suggested retail value of $25-$30), a free caller ID box (a suggested retail value of $20), prepaid calling cards, and free buckets of AT&T long distance minutes. Introductory incentives also include such benefits as a free Message Waiting/Caller ID unit with AT&T Voice Mail Service. Under this competitive pressure, ILECs have responded with their own incentive programs.

53. Prior to entry by AT&T and other CLECs in the New York local exchange market, consumers in New York had less choice and flexibility in calling plans. AT&T entered

the New York residential service market in 1999, offering residential service through UNE-P, and giving consumers additional choice and more variety in local calling plan options.

54. Competition in the NY residential market was initially stymied by Verizon's poor OSS performance and excessive UNE rates. However, through several years of effort, the New York Public Service Commission took steps to require Verizon to improve its OSS performance and recently concluded proceedings which resulted in reduced UNE rates. AT&T recently began to offer a promotion with unlimited local calling throughout New York, with prices of $19.95 per month in the metro downstate area and $22.95 per month upstate.[11] While Verizon recently raised rates, AT&T assured its eligible existing customers that AT&T's monthly rate on this promotional offer is guaranteed through April 30, 2003. New customers who subscribe to AT&T's residential local service by April 30, 2002 also will be guaranteed this rate through April 30, 2003. AT&T is widely advertising this price assurance offer in newspapers and on radio in New York, and has advised current, eligible AT&T New York residential local customers that they will be automatically receiving this benefit.

55. By contrast, Verizon offers an unlimited local calling plan, priced at $33.95 downstate and $39.80-47.51 upstate, with a choice of three features.[12] AT&T's New York unlimited local calling offer can be obtained without features –a benefit to those customers who may not want features. AT&T customers can purchase an unlimited offer alone, and then layer

---

[11] AT&T's $19.95 voice service offer included 75 hours (4500 minutes) of local calling (and 2 cents per minute for local calls beyond 75 hours). Under AT&T's current promotion, the plan includes unlimited local calling until April 30, 2003 for those customer who enroll or are otherwise eligible before April 30, 2002.

[12] Rates and features on Verizon NY plans verified on Verizon website, March 13, 2002.

on the features of their choosing. Customers may purchase features from AT&T either a la carte or in a 3-feature package priced at $12.50 which includes call waiting, three-way calling, and caller ID.

56. AT&T also offers its New York local customers an optional Extended LATA Plan which provides unlimited intraLATA calling plan for an additional $4.95 per month. Verizon also offers an optional unlimited intraLATA plan which has a monthly recurring charge which varies from $2 to $30 depending on the customer's past usage. It appears that Verizon recalculates the customer's monthly recurring charge on this plan every three months based on the customer's current usage.

57. AT&T also provides competitive choice to local service customers in Texas, and entered the local markets in Michigan and Georgia in February and March 2002. At least several customers who switched to AT&T local service in Michigan have informed AT&T that they received "winback" letters from Ameritech offering them an Ameritech local plan with unlimited local calling for $21.00 or the Call Plan 400 for around $14.00, and options bundling features and providing buckets of minutes for a flat rates. These bundled Ameritech offers appear to offer different value than previously seen from Ameritech before local market competition. At this time, Ameritech does not appear to be mass marketing or widely advertising this offer.

58. As mentioned above, AT&T has also begun offering a UNE-P based MSP offer on a controlled basis in New York that provides consumers for the first time with a value bundle of voice service (local, local toll, and long-distance), with desirable calling plans and DSL-based connectivity to Worldnet High Speed Services internet access. Introduced in November 2001, AT&T's basic offer of residential voice and data services includes: DSL (with speeds up to 768 kbps); unlimited Worldnet service from home; 10 hours per month of remote dial-up access for

Worldnet when the customer is away from home; and a local voice line which receives the same unlimited local calling plan promotion mentioned above.

59. In short, AT&T's provision of service through the UNE-P creates viable competition in the local exchange market, to the substantial benefit of consumers. This would not be possible absent the availability of UNEs, because no other method of market entry will enable AT&T to enter the market on a sustainable, mass-market basis.

C. AT&T's Experience In the Provision of Service Through UNE Loops

60. In the future, subject to economies of scale and resolution of migration and provisioning challenges, AT&T would like to combine loops leased from the ILEC with AT&T's own switches and its own transport in an approach commonly referred to as "UNE Loop" or "UNE-L." The UNE-L approach would reduce AT&T's dependence on the ILECs and maximize AT&T's ability to provide service options of its own choosing. And unlike on-going use of UNE-P, placing increasing numbers of customers on AT&T switches provides the simultaneous opportunity to reduce prices, increase features and improve profitability.[13]

61. Unfortunately, as described in the accompanying declaration of Ellyce Brenner, AT&T's experience in providing service to small-to-medium size businesses through UNE-L has shown that UNE-L is not a viable or cost-effective approach to mass-market entry. Brenner

---

[13] It is noteworthy that a CLEC's profitability potential from UNE-P is capped, because it can never achieve any economies of network scale, regardless of how many UNE-P customers it is able to acquire. In contrast, the ILECs can achieve scale economies for the very same customers, because they keep those customers' usage on their networks (albeit as wholesalers) and charge for much of that usage on a per minute basis, even though their costs are largely sunk and fixed. On the other hand, if a CLEC has a path to transition customers to efficiently utilized switches, it can attain the benefits of scale economy.

Dec., Sec. III.D.1. A manual and labor-intensive process for both ILECs and CLECs, hot cuts are costly and inefficient at best, and, all too often, result in unexpected delays, loss of service, and other end-user-affecting service problems that simply discourage customers from leaving the incumbent.

62. The economic and practical obstacles to the use of UNE-L are even more formidable for the provision of residential services. Residential market entry demands a process that is able to handle very high volumes of residential customer activity that is seamless enough to be acceptable to residential service customers. Like a CLEC using UNE-P, any CLEC providing service through UNE-L would seek to offer a competitive alternative that, through mass marketing, would generate a substantial customer base and a revenue stream sufficient to recover the CLEC's costs and make investments in facilities. Yet a CLEC cannot expect to recover its costs if (i) a manually intensive process limits the number of customers it can place on its own switch, (ii) the process it must rely on to move customers results in significant failures during or after the cutover, and (iii) the incumbent's recurring and non-recurring charges eliminate virtually any prospect of incumbent profit.[14] Moreover, reliance on UNE-L would damage and jeopardize a CLEC's nascent reputation as a local service provider because of the unacceptable level of service and provisioning problems allowed to ILECs under current performance standard metrics.

---

[14] Of course, effective and affordable hot cut provisioning is not the only requirement for UNE-L based competition. For such competition to be possible, charges for dedicated loops and transport must also be at levels that allow sufficient margin to CLECs, especially given the fact they face transport costs that the ILECs do not. Brenner Dec., Sec. IV.C. And of course, effective UNE-L competition cannot exist unless the ILEC provides nondiscriminatory access to OSS.

63. UNE-P can support residential market entry because it offers immediate, low-cost and error-free migration of customers from the ILEC to AT&T. In this regard, UNE-P stands in sharp contrast to the hot cut process upon which UNE loop-based market entry is so critically dependent. Unlike the UNE-L hot cut process, a UNE-P "cutover" is a fully automated, software-based activity that requires no human intervention and does not depend on whether the loop is connected through a DLC. Therefore, when the ILEC's recurring and non-recurring rates for UNE-P are reasonable and nondiscriminatory OSS is also available, UNE-P provides the only practical means for mass-market competition.[15]

IV. AT&T'S "MULTI-SERVICE PLATFORM" OFFER

64. In New York, AT&T has begun to offer residential customers a "multi-service platform" ("MSP") that provides all types of telecommunications services – local, long-distance, and DSL-based services. AT&T intends to make this offer an important part of its entry into residential markets in other states. In making this offer, AT&T initially will need to rely on UNE-P voice service with line-splitting,[16] which enables an earlier entry into the market given that UNE-P has the necessary infrastructure already in place for voice transmission. After a sufficient customer base has been established using UNE-P for voice and AT&T's own packet-switched network for data and "derived" (or packet-switched) voice service and other challenges

---

[15] Notably, UNE-P has also proven to be the only practical means for employing UNE-L for business customers with modest communications intensity. See Brenner Dec., Sec. III.D.2.

[16] "Line splitting" refers to the ability of a CLEC (either alone or in partnership with another CLEC) to provide both voice and data service over the same loop. As the FCC has recognized, the availability of line splitting is critical to the development of competition in the advanced services market (as well as the local exchange market). *See Line Sharing Reconsideration Order* ¶ 23. Under the FCC's *Line Sharing Reconsideration Order*, ILECs are required to "provide competing carriers with the ability to engage in line splitting arrangements." *Id.*

are resolved, AT&T plans to consider transitioning customers' "regular" voice service to its own circuit switches. As with other residential market entry strategies, the success of the MSP strategy will depend upon continued national unbundling of UNEs, including the availability of loops, circuit switching and transport, including high-capacity transport facilities.

A. AT&T's MSP Offer

65. As currently designed, AT&T's MSP offer will provide customers with both data and voice service. The data service provides: (a) high speed connections up to 768K/384K, moving to 1.5 Mbs; and (b) Worldnet High Speed Service access to the Internet with multiple e-mail IDs and a personal web page. The voice service consists of a "baseband voice" analog line with a local service plan.[17] Different versions of the offer may include various local calling plans and features. AT&T anticipates that in the future, the offer will be expanded to include home networking, up to 2 additional derived voice lines,[18] voice-only and data-only options, data security and storage, and service to small business and home offices.

66. Because it includes DSL-based service as well as circuit-switched based voice service, the MSP offer requires AT&T to collocate DSL technology that interoperates with customer premises equipment and connects to transmission facilities terminating on AT&T's ATM network. Thus, as a first step in its residential facility entry, AT&T is investing in transmission equipment in the collocation (*e.g.*, the DSLAM), high capacity UNE transport

---

[17] "Baseband" is the original band of frequencies of a signal before it is modulated for transmission at a higher frequency, *i.e.*, before it is multiplexed and sent on a carrier with other signals.

[18] The derived lines would be provided by multiplexing the voice and internet bound communications using DSL-based transmission technology.

facilities connecting to an AT&T ATM switch and the core AT&T ATM network to provide connectivity to the internet portal of the customer. As the offer expands to provide derived voice service, the first AT&T ATM switch will provide a virtual path to a voice gateway (that interfaces between an ATM-based network and a time division multiplexed network) located at the AT&T local switch designated to provide the customer's dial tone. Because additional investment in core connectivity and voice gateways is required, such investment will be pursued following demonstrated success of the initial offer.

67. AT&T has begun investing in facilities to support the MSP's integrated services in states where the regulatory environment, market conditions, and ILEC OSS, performance, and recurring and non-recurring charges make it feasible to offer these services. In New York, Texas, and California, AT&T has already established facilities in a number of local serving offices. Plans call for establishment of additional facilities in other states as funding allows and demand conditions permit. **[begin proprietary] [begin copy prohibited]** **********
****
****
****
******** **[end copy prohibited] [end proprietary]**

68. The MSP strategy is an important part of AT&T's plans to provide facilities-based competition for residential services. If AT&T's incremental revenues from the MSP exceed its incremental cost of serving those customers, providing the integrated service would generate an additional DSL-based revenue stream, which in turn would give AT&T the ability and incentive to invest in additional facilities-based infrastructure to serve residential customers. An analogous situation has already occurred in the cable industry. Cable providers were able to upgrade their plant to provide telephony (in addition to video programming) as a result of the

separate revenue stream that they generated from program distribution. Unless barriers to use of these investments are removed, *e.g.*, access to "unified" NGDLC loops is assured so that target markets are not artificially shrunk, a promising and innovative DSL-based facility platform may well fail to achieve its intended potential. Lesher/Frontera Dec., Sec. IV.B.2.

69. If the preconditions for competition are assured, the MSP platform also offers the potential for significant competition to the ILECs' retail voice and data service to residential customers. As long as incremental revenues from the integrated offering exceed incremental costs, AT&T will have every incentive to offer MSP to as many customers as possible, at prices below those offered by the ILECs, subject to the demand constraints identified below. By contrast, the ILECs do not have significant economic incentives to keep DSL-based service rates low, because ILECs actually benefit more if they provide customers with second line dial-up access, which requires almost no incremental investment by the ILEC, but generates substantial incremental revenues. See Willig Dec., Sec. V.B.

70. Given their reluctance to offer DSL-based capabilities in the first place, ILECs are unlikely to expand the availability of DSL technology unless they can receive higher prices for the DSL-based services. Yet higher prices would have the result of reducing, not stimulating, demand for DSL-based service. This approach would be particularly illogical in a market where, according to a recent report by the Department of Commerce, "the chief obstacle to wide-scale deployment of high-speed Internet services (which generally rely on DSL-based transmission

technology) is the lack of consumer and corporate demand for them, despite the technology's growing availability across the country."[19]

71. For AT&T, the generation of sufficient demand to warrant investment in DSL technology is not only critical to the success of the MSP platform itself, but also to the achievement of its plans for substantial investment in facilities to offer both voice and DSL service. Although the MSP platform offers the potential to generate the revenue stream needed for such investment, investment will be delayed if, among other factors, the demand for services relying upon DSL technology is insufficient. Thus, AT&T's commitment to facility-based entry via the MSP platform must also be viewed in the context of the current state of demand for DSL-based services. To do otherwise would ignore the principal lesson of AT&T's experience: a CLEC cannot allow costs or investment to outpace the acquisition of paying customers if it is to be an effective and viable competitor.

72. Although an opportunity for AT&T, MSP also presents a marketing challenge. In offering residential voice service, AT&T will be competing in a market dominated by the ILECs. In offering long-distance service, AT&T will be competing in a market where numerous competitors are already well established, and where ILECs such as Verizon and SBC already have demonstrated an ability to acquire a large market share in a very short period after receiving

---

[19] *See* B. Vaida, "Bush Administration Officials Detail Broadband Challenges," *National Journal Technology Daily*, March 5, 2002 (p.m. edition).

Section 271 authority.[20] And, as noted above, in the DSL-based service market, the ILECs were able to amass a huge market share while potential competitors were struggling with regulatory uncertainty that prevented them from competing on a reasonable basis, and ILECs were also able to sweep in a large portion of the early adopters of these new services, who are less costly to win and retain.[21]

B. Barriers to AT&T's Plan for MSP in Residential Competition

73. As I noted above, the ability to offer DSL-based services is very important to AT&T's residential entry plan, and UNE-P and line-splitting is critical to AT&T's ability to begin to make that offer. AT&T faces several significant obstacles, however, in bringing this offer to the market. A number of these obstacles could and should be removed by regulatory action.

74. Full implementation of the MSP requires that AT&T have full, nondiscriminatory access to the full transmission capacity of a customer's loop. Although AT&T can provide voice service through the UNE-P, it can provide DSL-based service only through loops that are connected to its own packet switching.

---

[20] Moreover, unlike the hot cut process for moving local customers, the long distance "PIC" change process offers quick, high volume, reliable and inexpensive means to move customers among alternative carriers. And unlike the local market, there has been no call for the ILECs to enter the long distance market as facilities-based providers. Indeed, the RBOCs' long distance entry has relied upon reselling IXC network capacity.

[21] As noted above, more than 90% of the residential DSL market is controlled by ILECs. See Footnote 1, *supra.* Further, retention in the DSL market is enhanced by the fact that many subscribers were signed to annual or multi-year service commitments with significant termination liabilities.

75. However, the ILECs are structuring their loop plant architecture in ways that limit CLECs' access to the full transmission capacity of the loops and frustrate viable competition, particularly competition for the provision of DSL-based service. The most notable example of such barriers is the ILECs' increasing deployment of DLC units, and their corresponding refusal to unbundle next generation DLC ("NGDLC") for CLECs.

76. Prior to the implementation of DLC, the architecture of the loop involved copper wires running all the way from the customer's premises to main distribution frame ("MDF") at the central office ("CO"). With the implementation of DLC, however, ILECs run the copper loop directly from the customer's premises to a serving area interface ("SAI") where copper loops from many customers terminate. Typically, the loops are cross-connected to additional copper facilities which are then run from the SAI to a remote terminal ("RT"), usually in the customer's neighborhood, which houses the DLC and other equipment that converts the analog voice communications into a digital format. Following that conversion, the communication is sent to the central office on a multiplexed feeder facility. Riolo Dec., Sec. III.A.

77. NGDLC technology takes this one step further and permits better utilization of local loop transmission capacity which in turn permits a wider range of telecommunications services to a broader cross-section of end-users. As implemented by incumbents, NGDLC technology separates low and high frequency signals at the RT, and (i) connects the low frequency transmissions – whether used to provide voice or data services – to its existing circuit switched network using time division multiplexing and (ii) connects the high frequency transmissions – whether used to provide voice or data services – to an ATM network using statistical multiplexing. Riolo Dec., Sec. IV.2; Lesher/Frontera Dec., Sec. IV.B.2.

78. It is important to recognize the detrimental effects upon competition that the ILECs' continuing deployment of DLC represents. This is yet another issue that must be

addressed before mass-market facilities-based competition can develop. There is no doubt that DLC is a cost-effective loop plant technology. However, although DLC is beneficial in controlling ILECs' costs, it also has extremely negative implication for facilities-based competition. Since the time when the Act came under serious consideration, the ILECs have deployed DLC at an aggressive pace. What has not been evident until more recently (because UNE-L competition had generally been stifled and much of the initial UNE-L entry was focused in areas with only minimal DLC presence), is the fact that UNE-P is the only practical means to provide local service competition when an ILEC's loop infrastructure is substantially DLC-based. This is because, as currently configured, loops with DLC cannot be accessed by CLECs to provide switched-based service without either performing a line and station transfer on one of the ILEC's existing copper lines that run from the customer's premises to the central office (if such loops are available and of acceptable quality), paying for the prohibitive costs for de-multiplexing of the DLC, or incurring the massive costs of RT collocation. In all cases, given the non-recurring and recurring costs imposed by most ILECs, the costs to the CLEC would be so high that any profit margin would be eliminated.

79. Furthermore, the presence of DLC and the potential walling off of NGDLC loops from unbundling suppress CLECs' ability to offer DSL-based services. Customers served on DLC loops cannot receive DSL-based service provided out of a CLEC's collocation because the loop is integrated into the ILEC's switch at the central office. Thus, in any ILEC central office that has a significant proportion of loops on DLC, the addressable market is significantly reduced, and possibly so small as to make it unprofitable to collocate a DSLAM. Further, ILECs are constantly incorporating more and more DLC into loops, thereby precluding CLECs from effectively accessing an increasing number of loops and reducing the prospects for CLECs to fully utilize their own switches, making facilities-based competition even harder.

80. Though the development of DLC could and should have benefited all customers, the ILECs have deployed it in a manner that significantly limits CLECs' access to the loop. Riolo Dec., Sec. II.C. Accessing loops at a collocation at the CO is not cost effective, because the signals on DLC loops are multiplexed at the RT, and a CLEC cannot access DLC loops at the MDF unless the feeder is de-multiplexed before it is terminated on the ILEC's switch.[22] Accessing loops through collocation at the RT is also tremendously impractical for CLECs. First of all, RT's generally lack the space and power necessary for CLECs to install collocation equipment. Riolo Dec., Sec. V.A. Most importantly, collocation at an RT costs about the same as CO collocation, but an RT serves only a fraction of the customers served by a CO, making it impossible to spread the costs of RT collocation across the customers served by that collocation.[23] *Id.*

81. ILECs have proposed to allow CLECs to access customers served by DLC loops through the use of so-called "spare copper," but that option is clearly inadequate. Riolo Dec., Sec. V.B; Gerszberg Dec., Sec. III.A. First, in new areas of growth where only DLC/NGDLC architecture is deployed, CLECs would be unable to access "all-copper" loops at all – because no

---

[22] A CLEC cannot serve a customer on a DLC or NGDLC loop unless the ILEC first demultiplexes the fiber traffic to allow the loop serving the customer to be cut over to the CLEC, and then multiplexes the remaining channels. The CLEC must pay for not only the cost of the loop, but also for the cost of the demultiplexing and multiplexing, a significant cost that the ILEC of course does not bear, and which makes it prohibitively expensive for a CLEC to serve a customer on a DLC or NGDLC loop. See Gerszberg Dec., Sec. III.A.; Lesher/Frontera Dec., Sec. IV.B.2.

[23] In NGDLC architecture, the communications originating from a single customer are divided at the RT and take two separate paths to the same central office. Because the paths employ separate multiplexing strategies, it becomes even more difficult for a CLEC to serve all the communication needs of a single retail customer. See Riolo Dec., Sec. IV.2; Lesher/Frontera Dec., Sec. IV.B.2.

such loops would exist. Gerszberg Dec., Sec. III.A. Second, because high frequency signals physically attenuate over distance, the transmission potential of an all-copper loop is, by definition, less than the potential for an NGDLC loop for the same customers, and the CLEC's customer would always receive a technically inferior quality loop. Riolo Dec., Sec. V.B.

82. Nor is there any possibility that CLECs could "provide their own" fiber feeder, because they have neither the ILECs' existing loop infrastructure – on which NGDLC is based -- nor the ILECs' captive customer base and economies of scale, scope, and density. To achieve the same capabilities as those provided by the ILECs' NGDLC, the CLECs would be required to construct an entirely new and redundant loop network at costs far higher than those any ILEC might incur when simply modernizing its existing feeder facility.

83. The ILECs' only answer to these intractable problems is to grudgingly offer a non-cost-based "wholesale service." However, experience with other ILEC "wholesale services," specifically access services, indicates that such capability will be priced well above cost and subject CLECs to significant cost disadvantages. This is not a realistic substitute for the simple availability of DLC/NGDLC loops as unbundled network elements.

84. Thus, DLC/NGDLC loop architecture severely limits the number of customers that can be served by a CLEC employing CO-based assets, and this problem will be exacerbated as the incumbents deploy additional DLC in their loop plant. Indeed, at COs with significant deployment of DLC or NGDLC, AT&T may have no prospect of being able to acquire sufficient customers to make a cost-effective investment in facilities to serve the residential market—if there are not enough customers accessible at a CO utilizing AT&T's facilities, the revenue potential will be insufficient to recover the cost of the investment while still offering customers a competitive service at competitive rates. Lesher/Frontera Dec., Sec. IV.A.1; see also Willig Dec., Section VI.B. Indeed, the prospect of underutilization of collocation facilities forced

AT&T recently to abandon some collocations that it had originally acquired for use in its MSP platform offering. AT&T's inability to implement a UNE-L entry strategy is not due to any lack of desire on its part to use UNE loops. The various barriers to entry erected by the ILECs, including above-cost UNE rates, the failed hot cut process, the ILECs' deployment of DLC equipment, and other limitations that foreclose efficient demand aggregation (e.g., use restrictions and failure to provide NGDLC loops), together with the limitations imposed by market conditions and the need to acquire a sufficient customer base to support facilities investment, effectively preclude CLECs from offering either a voice or DSL-based service over UNE loops.

85. Finally, deployment of AT&T's DSL-based facilities also requires access to high capacity transport facilities between its collocations and its packet (and circuit) switches. Because AT&T, like all CLECs, has far fewer customers at a given CO than the ILECs, it cannot economically construct its own fiber transport from each CO, and therefore must rely on existing ILEC transport facilities. Willig Dec., Sec. IV; Lesher/Frontera, Sec. IV.B.3. Unfortunately, the ILECs have been permitted by the Commission to impose use and co-mingling restrictions that further limit the situations in which a facility build might otherwise be justified. Id.

V. MOVING BEYOND UNE-P

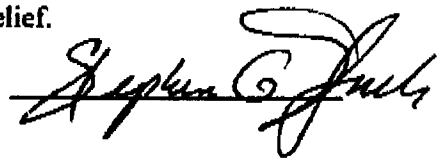
86. AT&T believes that the MSP integrated services package is important not only for the competitive service it provides consumers today, but also because it will establish a customer base that may support the economies of scale that will enable AT&T to consider moving many residential customers from UNE-P to UNE-L, even for voice-only service. However, the lesson of AT&T's experience in the residential market again cautions against facilities deployment that significantly outpaces the acquisition of a reasonable base of revenue-generating customers. Thus, UNE-L provisioning of residential services by AT&T can only be considered when and

where AT&T's MSP offer proves successful, thereby better ensuring both competitive prices and recovery of the core facility investments. Even then, the essential conditions for any UNE-L service must be met: cutovers must be reliable, unconstrained as to volume, and economical, and unbundled loops and transport must be generally available (without use restrictions) at a price that does not prevent a CLEC from earning a reasonable profit.

87. Under current conditions, therefore, the Commission is clearly correct that UNE-P, including unbundled local switching, is necessary to serve residential customers. *Notice*, ¶ 46. In addition, a UNE-L strategy cannot succeed in the residential market unless and until there is an electronic, automated form of loop provisioning that eliminates the problem of hot cut quality, quantity, and cost, and which also makes accessible the increasing number of DLC loops. As described in the declaration by Mr. Gerszberg, technology exists today that directly addresses these issues. Deployment of that technology would greatly enhance the attractiveness of UNE-L competition for AT&T as a means of providing facilities-based competition to ILECs' local service by meeting customers' expectations of a seamless migration between local service providers.

VERIFICATION PAGE

I hereby declare under penalty of perjury that the foregoing is true and and accurate to the best of my knowledge and belief.



April 2, 2002